SemiVolatile Organic Compounds in DW by Liquid/Solid Extraction and GC/MS **Page 1 of 3**
EPA 525.2, Revision 2.0

Facility Name:_____EPA ID_____

Assessor Name:_____Analyst Name:_____Inspection Date_____

Method Specific Requirements	Reference	Y	N	N/A	Comments
Records Examined: Date of Analysis:_____ Date(s) of Sample Preparation:_____ Analyst:_____					
Is a series of 6 calibration standards prepared for all compounds of interest? (If all method analytes are to be determined, 2 or 3 sets of calibration standards will likely be required). *[response factor (if used) <30%RSD]	5.10.2.a **EPA 7.10,** 10.2*				
Do at least 5 calibration points bracket the expected analyte concentration range?	5.10.2.a **EPA10.2.5.1**				
Are samples extracted within 14 days of collection and the extracts stored at 4°C and analyzed within 30 days of collection (except for carboxin, diazinon, disulfoton, disulfoton sulfoxide, fenamiphos, and terbufos, which are extracted immediately)?	5.10.2.a **EPA 8.3**				
Is the recovery of the Internal Standard in laboratory blanks and samples in excess of 70%? (Absolute peak areas for internal standard and surrogates must also be checked)	5.10.2.a **EPA 9.4**				
Is the laboratory fortified blank (LFB) containing each analyte analyzed with each batch of samples as a group within a 12 hour work shift?	5.10.2.a **EPA 9.6**				
Is a continuing calibration check analyzed each day or at the beginning of each period in which analyses are performed not to exceed 12 hours.	**EPA 10.1**				
Is the tune of the GC/MS checked each day with DFTPP?	5.10.2.a **EPA10.2.2**				
Is the breakdown of Endrin and DDT checked each day and maintenance performed if the breakdown of either exceeds 20%? (GC injector port Degradation <20%)	5.10.2.a **EPA10.2.2**				
Is the medium calibration standard check to ensure that anthracene and phenanthrene are separated by baseline? Benz(a)anthracene and chrysene are separated by a valley whose height is less than 25% average peak height of these two? (every 12 Hours)	5.10.2.a **EPA10.2.4.1**				
NOTES/COMMENTS:					

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Method Specific Requirements	**Reference**	**Y**	**N**	**N/A**	**Comments**
Is the system able to recognize at least 99% of the compounds in the medium calibration standard?	5.10.2.a **EPA10.2.4.2**				
If the RSD of any analyte or surrogate mean RF exceeds 30%, are linear regression curves used?	5.10.2.a **EPA10.2.6.1**				
Is an external source quality control sample analyzed at least quarterly?	**EPA 9.9**				
Is the Internal Standard and surrogate areas not allowed to decrease from the latest continuing calibration check by more than 30% or the initial calibration by more than 50%?	5.10.2.a **EPA 10.3.4**				
[ ] Is the Reference Factor (RF) for each analyte and surrogate within 30% of the mean value measured in the initial calibration? or [ ] Alternatively, if the linear regression is used, is the recovery amount for each analyte +/- 30% of the true value? (A single point calibration can be used if there are hits for a few analytes that did not meet criteria.)	5.10.2.a **EPA10.3.5**				
Sample Preparation: Analyst: _____ **Date:** _____					
Do records indicate that the sample has been checked for residual chlorine and that the pH is less than 2?	5.12.3.1.a **EPA 8.2**				
Cartridge Extraction:					
After passing the sample through the LSE cartridge, is the separatory funnel and sample container rinsed with ethyl acetate and methylene chloride used to elute the cartridge?	5.10.2.a **EPA 11.1.2**				
Is the extract concentrated in a warm water bath under a gentle stream of nitrogen to a volume greater than 0.5 mL?	5.10.2.a **EPA 11.1.5**				
Disk Extraction:					
After passing the sample through the disk, is the sample container rinsed with ethyl acetate which is allowed to elute through the disk?	5.10.2.a **EPA 11.2.6**				
Are two aliquots of 1:1 ethyl acetate: methylene chloride allowed to elute through the disk?	5.10.2.a **EPA 11.2.8**				
NOTES/COMMENTS:					

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Method Specific Requirements	**Reference**	**Y**	**N**	**N/A**	**Comments**
Is the extract concentrated in a warm water bath to between 0.5 mL and 1 mL?	5.10.2.a **EPA 11.2.9**				
Do the records include the identification of any standards, surrogates, internal standards, solvents, etc. used in the analysis and preparation of the samples?	5.12.3.1.f **(Extra Info.)**				
NOTES/COMMENTS:					

Extractable Organics Gas Chromatography Mass Spectrometry (GC/MS)

Method Specific Requirements

-Required Reagents & Standards-

Reverse-phase C-18 solid–phase disks or cartridges
Ethyl Acetate, Methylene Chloride, Methanol solid-phase conditioning reagents
Ethyl Acetate, the Methylene Chloride, as eluting solvents
Sodium Sulfate dying reagents
Endrin & DDT for GC degradation check
Internal Standards
DFTPP (Decafluorotriphenylphosphine) for tuning MS (Daily)